

T9C Series, AC Coil Power Relay

- 30A, 1NO, 20A/10A 1CO
- Flange mount
- 1.6VA coil (cULus recognized)
- 1.2VA coil (VDE approved)
- 2.5kV coil - contact dielectric

Typical applications
HVAC, power supplies, domestic appliances, measurement and controls.

Approvals

UL E58304; CSA LR48471; VDE REG.-Nr.A876
Technical data of approved types on request.

Contact Data

Contact arrangement	1 form A (NO), 1 form B (NC), 1 form C (CO)
Rated voltage	250VAC
Max. switching voltage	277VAC
Rated current	30A (NO), 10A (NC), 20A/10A (CO)
Breaking capacity max.	7500VA
Contact material	AgSnOInO, AgCdO
Min. recommended contact load	1A, 5VDC or 12VAC
Initial contact resistance	75 mΩ at 1A at 5VDC or 12VAC
Frequency of operation, with/without load	6/300min
Operate/release time max., including bounce	15/15ms

Contact ratings

Type	Load	Cycles
UL508		
AgCdO		
NO	30A, 125VAC, resistive	100x10 ³
NO	20A, 28VDC, resistive	100x10 ³
NO	1hp, 277VAC	6,000
CO	30A(NO)/15A(NC), 125VAC, general purpose	100x10 ³
CO	10A(NO)/10A(NC), 240VAC, general purpose	100x10 ³
CO	30A(NO)/20A(NC), 240VAC, resistive	6,000
NC	20A, 240VAC, resistive	6,000
AgSnOInO		
NO	30A, 250VAC, resistive	30x10 ³
NO	15A, 240VAC, general purpose	100x10 ³
NO	1hp, 120VAC	6,000
CO	20A(NO)/10A(NC), 250VAC, resistive	6,000
NC	1/2hp, 240VAC	6,000

IEC 61810

NO	15A, 277VAC, cos =1, 85°C	100x10 ³
Mechanical endurance		5x10 ⁶ ops.

Coil Data

Coil voltage range	12 to 240VAC
Max. coil power	Coil A, 1.6VA Coil E, 1.2VA
Coil insulation system according UL	Class F

Coil versions, AC coil

Coil code	Rated voltage VAC	Frequency HZ	Operate voltage VAC, 60HZ	Release voltage VAC, 60HZ	Coil resistance Ω±10%	Rated coil power VA
Code A (1.6VA) coil						
12	12	50/60	9.6	1.2	36	1.6
24	24	50/60	19.2	2.4	136	1.6
48	48	50/60	38.4	4.8	548	1.6
120	110/120	50/60	96	12	2800	1.6
240	220/240	50/60	192	24	11500	1.6
277	250/277	50/60	221.6	27.7	15625	1.6



Code E (1.2VA) coil

12	12	50/60	9.6	1.2	52	1.2
24	24	50/60	19.2	2.4	198	1.2
48	48	50/60	38.4	4.8	824	1.2
120	110/120	50/60	96	12	3728	1.2
240	240/240	50/60	192	24	14810	1.2

All figures are given for coil without preenergization, at ambient temperature +23°C.

Insulation Data

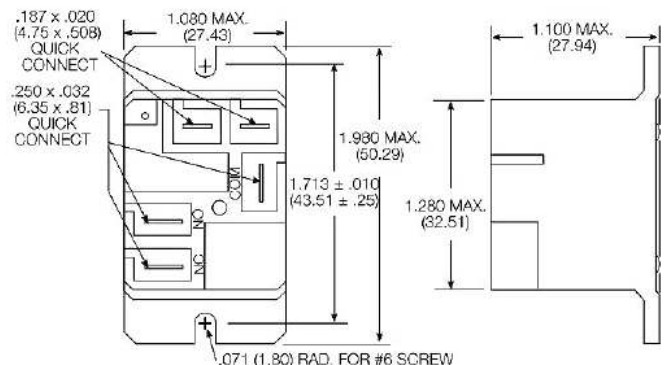
Initial dielectric strength	
between open contacts	1500V _{rms}
between contact and coil	2500V _{rms}
Initial insulation resistance	
between insulated elements	1x10 ⁹ Ω
Clearance/creepage	
between contact and coil	3.1 / 6.3mm (UL508)
Tracking index of relay base	175

Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customer-support/rohssupportcenter

Ambient temperature	
AC coil	-40°C to 85°C
Category of environmental protection	
IEC 61810	RT1 - dust protected
Vibration resistance (functional)	1.5mm, 10-55 Hz
Shock resistance (functional)	10g for 11msec
Shock resistance (destructive)	100g
Terminal type	quick connect
Weight	33g
Resistance to soldering heat THT	
IEC 60068-2-20	250°C
Packaging/unit	250 pcs

Dimensions

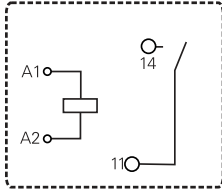


Note: Recommended mounting screw torque is 4.0-5.0 lbs.in when #6 screw is used.

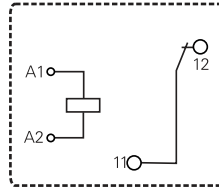
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Terminal assignment

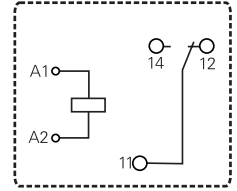
1 form A



1 form B



1 form C



Product code structure

Typical product code

T9C P 1 A 5 4 -24

Type
T9C Power Relay T9C AC coil

Enclosure
P Dust protected (flange mount)

Contact arrangement

- 1** 1 form A (1 NO);
- 2** 1 form B (1 NC)
- 5** 1 form C (1 CO);

Coil input

- A** AC voltage, 1.6VA
- E** AC voltage, 1.2VA

Mounting and termination

- 5** Flanged mounting; 4.75 mm (.187) QC for coil and 6.35mm (.250in) QC for contacts

Contact material

- 2** AgCdO
- 4** AgSnInO

Coil voltage

Coil code: please refer to coil versions table

Product Code	Contact arrangement	Contact material	Coil voltage	Part Number
T9CP1A52-12	1 form A (NO)	AgCdO	12 VAC	1649341-3
T9CP1A52-24			24 VAC	1649341-1
T9CP1A52-48			48 VAC	1649341-4
T9CP1A52-120			120 VAC	1649341-5
T9CP1A52-240	1 form C (CO)		240 VAC	1649341-6
T9CP5A52-12			12 VAC	1-1649341-1
T9CP5A52-24			24 VAC	1-1649341-2
T9CP5A52-48			48 VAC	1-1649341-3
T9CP5A52-120			120 VAC	1-1649341-4
T9CP5A52-240			240 VAC	1-1649341-5
T9CP1A54-12	1 form A (NO)	AgSnInO	12 VAC	1649341-7
T9CP1A54-24			24 VAC	1649341-8
T9CP1A54-48			48 VAC	1649341-9
T9CP1A54-120			120 VAC	1-1649341-0
T9CP1A54-240	1 form B (NC)		240 VAC	1649341-2
T9CP2A54-120			120 VAC	2-1649341-5
T9CP2A54-240			240 VAC	2-1649341-4
T9CP5A54-12			12 VAC	1-1649341-6
T9CP5A54-24	1 form C (CO)		24 VAC	1-1649341-7
T9CP5A54-48			48 VAC	1-1649341-8
T9CP5A54-120			120 VAC	1-1649341-9
T9CP5A54-208			208 VAC	2-1649341-6
T9CP5A54-240			240 VAC	2-1649341-0
T9CP5A54-277			277 VAC	2-1649341-7

Note. This list represents the most common types and does not show all variants covered by this datasheet, other types on request.